

(43) International Publication Date 18 January 2001 (18.01.2001)

PCT

(10) International Publication Number WO 01/04415 A1

(51) International Patent Classification⁷: D21H 17/65. D21C 9/00, 11/00, C02F 1/52, 1/62, 11/12

(21) International Application Number:

PCT/SE00/01427

(22) International Filing Date:

5 July 2000 (05.07.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

9902636-1

9 July 1999 (09.07.1999) SE

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier application:

US Filed on Not furnished (CIP) Not furnished

(71) Applicant (for all designated States except US): SCA GRAPHIC RESEARCH AB [SE/SE]; P.O. Box 3054, S-850 03 Sundsvall (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KARLSSON, Anette [SE/SE]; Rubinvägen, S-852 39 Sundsvall (SE). HAIAS, Liviu [SE/SE]; Skönsbergsvägen 25B, S-856 45 Sundsvall (SE).

(74) Agent: GÖTEBORGS PATENTBYRÅ DAHLS AB; Sjöporten 4, S-417 64 Göteborg (SE).

- (81) Designated States (national): AE, AG, AL, AM, AT, AT (utility model), AU (petty patent), AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EE, EE (utility model), ES, FI. FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR (utility model), KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- With international search report.
- Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR ELIMINATING DETRIMENTAL SUBSTANCES IN A PROCESS LIQUID

(57) Abstract: A method for eliminating detrimental substances in a process liquid. The process liquid has a first pH and, in addition to said detrimental substances, comprises metal ions and suspended material. Carbon dioxide is added to the process liquid in order to bring the process liquid to a second pH, lower than the first pH. Thereby, the metal ions comprise hydroxide builders, wherein the carbon dioxide (CO₂) is added in an amount which causes the second pH to be between 8 and 6.5, so that the carbon dioxide primarily forms bicarbonate ions (HCO37) having a pH-buffering effect and the metal ions primarily form metal hydroxides. Thereafter, the detrimental substances coagulate or agglomerate with the metal hydroxides and are adhered to the suspended material so that they become inactive. The method is advantageously used in connection with pulp and/or paper making processes.

ż